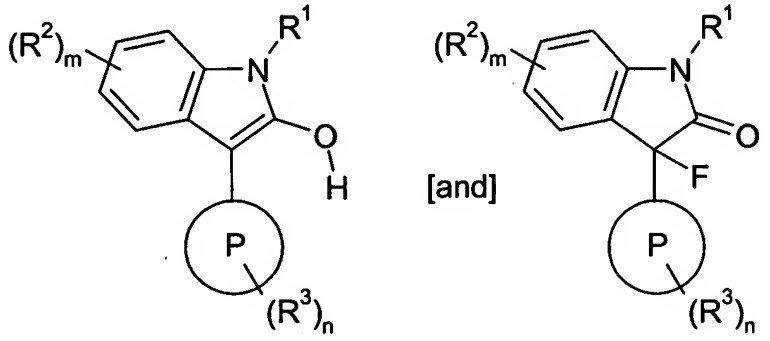
Amendments to the Claims

The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently amended) A compound of formula Ia or ~~and~~ Ib, :



(Ia) **(Ib)**

wherein the compound is in the form of a free base or a pharmaceutically acceptable salt thereof, and wherein:

P ~~represents~~ is a 5- or 6-membered heteroaromatic ring containing one or two heteroatoms ~~selected~~ independently selected from N, O, and S, ~~of which~~ wherein at least one heteroatom is nitrogen;

R^1 is hydrogen;

R^2 and R^3 are independently selected from the group consisting of halogen, nitro, C_{1-6}alkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, C_{0-6}alkylC_{3-6}cycloalkyl, C_{0-6}alkylaryl, C_{0-6}alkylheteroaryl, CHO, C_{0-6}alkylOR^4, OC_{1-6}alkylOR^4, C_{0-6}alkylSR^4, OC_{1-6}alkylSR^4, $(CO)R^4$, $(CO)OR^4$, $O(CO)R^4$, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, trifluoromethoxy, OC_{1-6}alkylcyano, C_{0-6}alkylcyano, C_{1-6}alkylCO_2R^4, OC_{1-6}alkylCO_2R^4, $O(CO)OR^4$, OC_{1-6}alkylCOR^4, C_{1-6}alkylCOR^4, NR^4OR^5, C_{0-6}alkylNR^4R^5, OC_{1-6}alkylNR^4R^5, C_{0-6}alkyl$CONR^4R^5$, OC_{1-6}alkyl$CONR^4R^5$, OC_{1-6}alkyl$NR^4(CO)R^5$, C_{0-6}alkyl$NR^4(CO)R^5$,

$C_{0-6}alkylNR^4(CO)NR^4R^5$, $O(CO)NR^4R^5$, $NR^4(CO)OR^5$, $C_{0-6}alkyl(SO_2)NR^4R^5$, $OC_{1-6}alkyl(SO_2)NR^4R^5$, $C_{0-6}alkylNR^4(SO_2)R^5$, $OC_{1-6}alkylNR^4(SO_2)R^5$, $C_{0-6}alkyl(SO)NR^4R^5$, $OC_{1-6}alkyl(SO)NR^4R^5$, SO_3R^4, $C_{0-6}alkylNR^4(SO_2)NR^4R^5$, $C_{0-6}alkylNR^4(SO)R^5$, $OC_{0-6}alkylNR^4(SO)R^5$, $OC_{0-6}alkylSO_2R^4$, $C_{0-6}alkylSO_2R^4$, $C_{0-6}alkylSOR^4$, $OC_{1-6}alkylSOR^4$, and [~~a group~~] X^1R^6; [, wherein]

X^1 is selected from the group consisting of a direct bond, O, $CONR^7R^8$, $SO_2NR^9R^{10}$, SO_2R^{11}, and [~~or~~] $NR^{12}R^{13}$; [~~and wherein~~]

R^6 is linked to R^8, R^{10}, R^{11}, and R^{13};

R^7, R^9, and R^{12} are each independently [~~are~~] selected from hydrogen [~~or~~] and C_{1-6}alkyl;

R^8, R^{10}, R^{11}, and R^{13} are each independently selected C_{1-6}alkyl groups;

R^6 is phenyl or a 5-, 6-, or 7-membered heterocyclic group containing one or two heteroatoms [,] [~~selected~~] independently selected from N, O, and S, [~~which~~] wherein:
the heterocyclic group [~~may be~~] is saturated or unsaturated, [~~or said~~]
the phenyl or 5-, 6-, or 7-membered heterocyclic group [~~may~~] is optionally [~~be~~] fused with a 5- or 6-membered saturated or unsaturated ring containing atoms [~~selected~~] independently selected from C, N, O, and S, and [~~which~~]
the phenyl or heterocyclic group [~~may be~~] is optionally substituted with one or two substituents selected from W;

m is 0, 1, 2, 3, or 4;

n is 0, 1, 2, 3, or 4;

R^4 is selected from the group consisting of hydrogen, C_{1-6}alkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, C_{0-6}alkylC_{3-6}cycloalkyl, C_{0-6}alkylaryl, C_{0-6}alkylheteroaryl, C_{1-6}alkyl$NR^{14}R^{15}$, and a 5- or 6-membered heterocyclic group containing one or two heteroatoms [~~, selected~~] independently selected from N, O, and S, wherein [~~said~~] the heterocyclic group [~~may optionally be~~] is optionally substituted by a group Y;

R^5 is selected from the group consisting of hydrogen, C_{1-6}alkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, C_{0-6}alkylC_{3-6}cycloalkyl, C_{0-6}alkylaryl, C_{0-6}alkylheteroaryl, and C_{1-6}alkyl$NR^{14}R^{15}$ [~~and~~];

wherein R^4 and R^5 [~~may~~] optionally together form a 4-, 5-, 6- or 7-membered heterocyclic group containing one or more heteroatoms selected independently from N, O, and S, wherein [~~said~~] the heterocyclic group [~~may optionally be~~] is optionally substituted by a group Y; and

wherein any C_{1-6}alkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, C_{0-6}alkylC_{3-6}cycloalkyl, C_{0-6}alkylaryl, and [;] C_{0-6}alkylheteroaryl group defined under R^2 to R^5 [~~may be~~] is optionally substituted by one or more groups Z;

R^{14} and R^{15} are independently selected from hydrogen, C_{1-6}alkyl, and C_{0-6}alkylC_{3-6}cycloalkyl, [~~and~~]

wherein R^{14} and R^{15} [~~may~~] optionally together form a 5- or 6-membered heterocyclic group containing one or more heteroatoms [~~, selected~~] independently selected from N, O, and S, wherein [~~said~~] the heterocyclic group [~~may optionally be~~] is optionally substituted by a group Y;

W and Z are independently selected from the group consisting of oxo, halogen, nitro, CN, OR^{16}, C_{1-6}alkyl, C_{0-6}alkylaryl, C_{0-6}alkylC_{3-6}cycloalkyl, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, trifluoromethoxy, OC_{1-6}alkyl$NR^{16}R^{17}$, $NR^{16}R^{17}$, $CONR^{16}R^{17}$, $NR^{16}(CO)R^{17}$, $O(CO)C_{1-6}$alkyl, $(CO)OC_{1-6}$alkyl, COR^{16}, $(SO_2)NR^{16}R^{17}$, SO_2R^{16}, SOR^{16}, $(CO)C_{1-6}$alkyl$NR^{16}R^{17}$, $(SO_2)C_{1-6}$alkyl$NR^{16}R^{17}$, phenyl, heteroaryl, and a 5- or 6-membered

heterocyclic group containing one or two heteroatoms [~~, selected~~] independently selected from N, O, and S, [~~phenyl and heteroaryl, which~~] wherein the phenyl, heteroaryl, and heterocyclic groups are optionally [~~heterocyclic group, phenyl or heteroaryl may optionally be~~] substituted by a group Y;

Y is selected from the group consisting of oxo, halogen, nitro, CN, OR^{16}, C_{1-6}alkyl, C_{0-6}alkylaryl, C_{0-6}alkylC_{3-6}cycloalkyl, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, trifluoromethoxy, OC_{1-6}alkyl$NR^{16}R^{17}$, $NR^{16}R^{17}$, $CONR^{16}R^{17}$, $NR^{16}(CO)R^{17}$, $O(CO)C_{1-6}$alkyl, $(CO)OC_{1-6}$alkyl, COR^{16}, $(SO_2)NR^{16}R^{17}$, SO_2R^{16}, SOR^{16}, $(CO)C_{1-6}$alkyl$NR^{16}R^{17}$, $(SO_2)C_{1-6}$alkyl$NR^{16}R^{17}$, phenyl, C_{0-6}alkylaryl, and heteroaryl, wherein the phenyl, C_{0-6}alkylaryl, and heteroaryl groups are [~~may be~~] optionally substituted with one or more substituents selected from the group consisting of halogen, nitro, CN, OR^{16}, C_{1-6}alkyl, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, and trifluoromethoxy;

R^{16} and R^{17} are independently selected from hydrogen and C_{1-6}alkyl, and

wherein R^{16} and R^{17} [~~may~~] optionally together form a 5- or 6-membered heterocyclic group containing one or more heteroatoms [~~, selected~~] independently selected from N, O, and S;

[~~as a free base or a pharmaceutically acceptable salt thereof~~].

2. (Original) The compound according to claim 1, wherein P is a 6-membered heteroaromatic ring containing one or two nitrogen atoms.

3. (Original) The compound according to claim 1, wherein P is pyridine.

4. (Currently amended) The compound according to claim 1, wherein [~~ring~~] P is pyrimidine.

5. (Currently amended) The compound according to [~~any one of claims 1 to 4, said compound being a compound of~~] claim 1, wherein the compound has Formula Ia.

6. (Currently amended) The compound according to [~~any one of claims 1 to 5,~~] claim 1, wherein:

R^2 and R^3 are independently selected from [:] the group consisting of halogen, nitro, C_{0-6}alkylheteroaryl, trifluoromethyl, C_{0-6}alkylcyano, C_{0-6}alkylNR^4R^5, C_{0-6}alkyl$CONR^4R^5$, OC_{1-6}alkylNR^4R^5, C_{0-6}alkyl$(SO_2)NR^4R^5$, and [~~a group~~] X^1R^6; [~~, wherein~~]

X^1 is a direct bond;

R^6 is a 5-membered heterocyclic group containing one or two heteroatoms [,] independently selected [~~independently~~] from N, O, and S, [~~and which~~] wherein the heterocyclic group is optionally [~~may be~~] substituted with one or two substituents W; [~~, preferably C_{1-6}alkyl;~~]

m is 0, 1, or 2; and

n is 1 or 2.

7. (Currently amended) The compound according to [~~any one of claims 1 to 6,~~] claim 1, wherein:

R^4 is independently selected from the group consisting of hydrogen, C_{1-6}alkyl, C_{0-6}alkylC_{3-6}cycloalkyl, C_{0-6}alkylaryl, C_{0-6}alkylheteroaryl, C_{1-6}alkyl$NR^{14}R^{15}$, and a 5- or 6-membered heterocyclic group containing one or two heteroatoms [~~, selected~~] independently selected from N, O, and S, wherein [~~said~~] the heterocyclic group [~~may optionally be~~] is optionally substituted by a group Y;

R^5 is selected from hydrogen [,] and C_{1-6}alkyl;

wherein R^4 and R^5 [~~may~~] optionally together form a 4-, 5-, 6- or 7-membered heterocyclic group containing one or more heteroatoms [~~selected~~] independently selected from N, O, and S, wherein [~~said~~] the heterocyclic group [~~may optionally be~~] is optionally substituted by a group Y; [~~and wherein~~]

any C_{1-6}alkyl [,] or C_{0-6}alkylaryl group defined under R^2 to R^5 [~~may be~~] is optionally substituted by one or more groups Z;

R^{14} and R^{15} are independently selected C_{1-6}alkyl groups; [~~and~~]

wherein R^{14} and R^{15} [~~may~~] optionally together form a 5- or 6-membered heterocyclic group containing one or more heteroatoms [~~, selected~~] independently selected from N, O, and S;

Z is independently selected from [,] halogen, C_{1-6}alkyl, CN, and $NR^{16}R^{17}$; [.]

Y is selected from the group consisting of C_{1-6}alkyl, C_{0-6}alkylaryl, $NR^{16}R^{17}$, and phenyl, wherein the phenyl [may be] is optionally substituted with one or more groups selected from nitro and trifluoromethyl;

R^{16} and R^{17} are C_{1-6}alkyl; and

wherein R^{16} and R^{17} [~~may~~] optionally together form a 5- or 6-membered heterocyclic group containing one or more heteroatoms [~~, selected~~] independently selected from N, O, and S.

8. (Currently amended) The compound according to [~~any one of claims 1 to 3 and claims 5 to 7,~~] claim 1, wherein:
P is pyridine;
R^2 is CN;
R^3 is C_{0-6}alkylNR^4R^5; and [~~wherein~~]
R^4 and R^5 [~~may~~] optionally together form a 4-, 5-, 6- or 7-membered heterocyclic group containing one or more heteroatoms [~~selected~~] independently selected from N, O, and S.

9. (Currently amended) A compound [~~which is~~] selected from the group consisting of:

2-(5-Cyano-2-hydroxy-1*H*-indol-3-yl)-*N*-[2-(dimethylamino)ethyl]isonicotinamide;

2-Hydroxy-3-{4-[(4-methylpiperazin-1-yl)carbonyl]pyridin-2-yl}-1*H*-indole-5-carbonitrile hydrochloride;

2-Hydroxy-3-{5-[(4-methylpiperazin-1-yl)carbonyl]pyridin-2-yl}-1*H*-indole-5-carbonitrile;

2-Hydroxy-3-[5-(morpholin-4-ylmethyl)pyridin-2-yl]-1*H*-indole-5-carbonitrile hydrochloride;

2-Hydroxy-3-[6-(2-morpholin-4-ylethoxy)pyrimidin-4-yl]-1*H*-indole-5-carbonitrile;

2-Hydroxy-3-{5-[(4-methylpiperazin-1-yl)methyl]pyridin-2-yl}-1*H*-indole-5-carbonitrile hydrochloride;

6-(5-Cyano-2-hydroxy-1*H*-indol-3-yl)-*N*-[2-(dimethylamino)ethyl]-*N*-methylnicotinamide hydrochloride;

2-Hydroxy-3-{5-[(4-methylpiperazin-1-yl)sulfonyl]pyridin-2-yl}-1*H*-indole-5-carbonitrile hydrochloride;

6-(5-Cyano-2-hydroxy-1*H*-indol-3-yl)-*N*-(2-pyrrolidin-1-ylethyl)pyridine-3-sulfonamide hydrochloride;

2-Hydroxy-3-[5-(morpholin-4-ylmethyl)pyridin-2-yl]-1*H*-indole-5-carbonitrile;

2-Hydroxy-3-[5-(pyrrolidin-1-ylmethyl)pyridin-2-yl]-1*H*-indole-5-carbonitrile hydrochloride;

2-Hydroxy-3-{5-[(4-methyl-1,4-diazepan-1-yl)methyl]pyridin-2-yl}-1*H*-indole-5-carbonitrile hydrochloride;

2-Hydroxy-3-{5-[(4-pyrrolidin-1-ylpiperidin-1-yl)methyl]pyridin-2-yl}-1*H*-indole-5-carbonitrile hydrochloride;

3-(5-{[3-(Dimethylamino)pyrrolidin-1-yl]methyl}pyridin-2-yl)-2-hydroxy-1*H*-indole-5-carbonitrile;

2-Hydroxy-3-{5-[(4-methylpiperidin-1-yl)methyl]pyridin-2-yl}-1*H*-indole-5-carbonitrile;

2-Hydroxy-3-{5-[(4-phenylpiperazin-1-yl)methyl]pyridin-2-yl}-1*H*-indole-5-carbonitrile;

3-[5-(Azetidin-1-ylmethyl)pyridin-2-yl]-2-hydroxy-1*H*-indole-5-carbonitrile;

2-Hydroxy-3-[5-({4-[2-nitro-4-(trifluoromethyl)phenyl]piperazin-1-yl}methyl)pyridin-2-yl]-1*H*-indole-5-carbonitrile;

3-(5-{[(2-Cyanoethyl)(ethyl)amino]methyl}pyridin-2-yl)-2-hydroxy-1*H*-indole-5-carbonitrile;

3-(5-{[(4-Chlorobenzyl)(methyl)amino]methyl}pyridin-2-yl)-2-hydroxy-1*H*-indole-5-carbonitrile;

3-(5-{[(2-Furylmethyl)(methyl)amino]methyl}pyridin-2-yl)-2-hydroxy-1*H*-indole-5-carbonitrile;

2-Hydroxy-3-(5-{[methyl(phenyl)amino]methyl}pyridin-2-yl)-1*H*-indole-5-carbonitrile;

2-Hydroxy-3-{5-[(3-methylpiperidin-1-yl)methyl]pyridin-2-yl}-1*H*-indole-5-carbonitrile;

3-(5-{[Cyclohexyl(methyl)amino]methyl}pyridin-2-yl)-2-hydroxy-1*H*-indole-5-carbonitrile;

2-Hydroxy-3-[5-(piperidin-1-ylmethyl)pyridin-2-yl]-1*H*-indole-5-carbonitrile;

3-{5-[(4-Methylpiperazin-1-yl)sulfonyl]pyridin-2-yl}-1*H*-indol-2-ol hydrochloride;

6-Chloro-3-{5-[(4-methylpiperazin-1-yl)sulfonyl]pyridin-2-yl}-1*H*-indol-2-ol hydrochloride;

3-[5-(Morpholin-4-ylcarbonyl)pyridin-2-yl]-5-nitro-1*H*-indol-2-ol;

6-Bromo-3-[5-(morpholin-4-ylmethyl)pyridin-2-yl]-1*H*-indol-2-ol hydrochloride;

2-Hydroxy-3-[5-(morpholin-4-ylmethyl)pyridin-2-yl]-1*H*-indole-6-carbonitrile hydrochloride;

5-Bromo-3-[5-(morpholin-4-ylmethyl)pyridin-2-yl]-1*H*-indol-2-ol hydrochloride;

5,6-Dibromo-3-[5-(morpholin-4-ylmethyl)pyridin-2-yl]-1*H*-indol-2-ol hydrochloride;

3-Fluoro-3-[5-(morpholin-4-ylmethyl)pyridin-2-yl]-2-oxoindoline-6-carbonitrile hydrochloride;

3-{5-[(4-Benzylpiperazin-1-yl)sulfonyl]pyridin-2-yl}-2-hydroxy-1*H*-indole-5-carbonitrile hydrochloride;

2-Hydroxy-3-(5-{[4-(3-methylbutyl)piperazin-1-yl]sulfonyl}pyridin-2-yl)-1*H*-indole-5-carbonitrile hydrochloride;

2-Hydroxy-3-{5-[(4-isopropylpiperazin-1-yl)sulfonyl]pyridin-2-yl}-1*H*-indole-5-carbonitrile hydrochloride;

3-{5-[(4-Ethylpiperazin-1-yl)sulfonyl]pyridin-2-yl}-2-hydroxy-1*H*-indole-5-carbonitrile hydrochloride;

3-[5-(Morpholin-4-ylmethyl)pyridin-2-yl]-5-pyridin-3-yl-1*H*-indol-2-ol;

3-[5-(Morpholin-4-ylmethyl)pyridin-2-yl]-5-thien-2-yl-1*H*-indol-2-ol hydrochloride;

5-(2-Furyl)-3-[5-(morpholin-4-ylmethyl)pyridin-2-yl]-1*H*-indol-2-ol hydrochloride;

3-{3-Bromo-5-[(4-methylpiperazin-1-yl)sulfonyl]pyridin-2-yl}-5-nitro-1*H*-indol-2-ol hydrochloride;

3-[5-(Morpholin-4-ylmethyl)pyridin-2-yl]-5-(trifluoromethyl)-1*H*-indol-2-ol hydrochloride;

2-Hydroxy-3-{5-[(4-methylpiperazin-1-yl)sulfonyl]pyridin-2-yl}-1*H*-indole-6-carbonitrile hydrochloride;

N-[(1-Ethylpyrrolidin-2-yl)methyl]-6-(2-hydroxy-5-nitro-1*H*-indol-3-yl)nicotinamide hydrochloride;

6-(2-Hydroxy-5-nitro-1*H*-indol-3-yl)-*N*-(2-morpholin-4-ylethyl)nicotinamide hydrochloride;

6-(2-Hydroxy-5-nitro-1*H*-indol-3-yl)-*N*-methyl-*N*-(1-methylpiperidin-4-yl)nicotinamide hydrochloride;

5-Nitro-3-{5-[(4-pyrrolidin-1-ylpiperidin-1-yl)carbonyl]pyridin-2-yl}-1*H*-indol-2-ol hydrochloride;

3-(5-{[3-(Dimethylamino)pyrrolidin-1-yl]carbonyl}pyridin-2-yl)-5-nitro-1*H*-indol-2-ol hydrochloride;

N-[2-(Dimethylamino)-1-methylethyl]-6-(2-hydroxy-5-nitro-1*H*-indol-3-yl)nicotinamide hydrochloride;

6-(2-Hydroxy-5-nitro-1*H*-indol-3-yl)-*N*-(2-pyrollindin-1-ylethyl)nicotinamide fumarate;

3-{5-[(4-Methylpiperazin-1-yl)carbonyl]pyridin-2-yl}-5-nitro-1*H*-indol-2-ol fumarate;

6-(5-Cyano-2-hydroxy-1*H*-indol-3-yl)-*N*-(2-pyrrolidin-1-ylethyl)nicotinamide fumarate;

6-(5-Cyano-2-hydroxy-1*H*-indol-3-yl)-*N*-methyl-*N*-(2-pyrrolidin-1-ylethyl)pyridine-3-sulfonamide hydrochloride;

6-(5-Cyano-2-hydroxy-1*H*-indol-3-yl)-*N*-[2-(dimethylamino)ethyl]pyridine-3-sulfonamide fumarate;

6-(5-Cyano-2-hydroxy-1*H*-indol-3-yl)-*N*-[2-(dimethylamino)ethyl]-*N*-ethylpyridine-3-sulfonamide fumarate;

6-(5-Cyano-2-hydroxy-1*H*-indol-3-yl)-*N*-[(1-ethylpyrrolidin-2-yl)methyl]pyridine-3-sulfonamide fumarate;

2-Hydroxy-3-{5-[(4-methyl-1,4-diazepan-1-yl)sulfonyl]pyridin-2-yl}-1*H*-indole-5-carbonitrile fumarate;

2-Hydroxy-3-[5-(morpholin-4-ylsulfonyl)pyridin-2-yl]-1*H*-indole-5-carbonitrile;

3-{5-[(4-Methylpiperazin-1-yl)sulfonyl]pyridin-2-yl}-5-(2-methyl-1,3-thiazol-4-yl)-1*H*-indol-2-ol hydrochloride;
3-{5-[(4-Methylpiperazin-1-yl)sulfonyl]pyridin-2-yl}-5-(1,3-thiazol-4-yl)-1*H*-indol-2-ol fumarate;
3-{5-[(4-Methylpiperazin-1-yl)sulfonyl]pyridin-2-yl}-5-(1,3-oxazol-5-yl)-1*H*-indol-2-ol; and
3-[5-(Morpholin-4-ylmethyl)pyridin-2-yl]-5-nitro-1*H*-indol-2-ol hydrochloride.

10. (Currently amended) A pharmaceutical formulation comprising as active ingredient a therapeutically effective amount of a compound according to any one of claims 1 to 9 [~~in association with~~] and one or more pharmaceutically acceptable carriers or diluents.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Currently amended) A method [~~of~~] for the prevention and/or treatment of conditions associated with glycogen synthase kinase-3, the method comprising [~~administrering to a mammal, including man in need of such prevention and/or treatment,~~] administering a

therapeutically effective amount of a compound [~~of formula Ia or Ib as defined in~~] according to any one of claims 1 to 9 to a patient in need thereof.

19. (Currently amended) A method [~~of~~] for the prevention and/or treatment of a medical condition selected from the group consisting of dementia, Alzheimer's Disease, Parkinson's Disease, Frontotemporal dementia Parkinson's Type, Parkinson dementia complex of Guam, HIV dementia, diseases with associated neurofibrillar tangle pathologies, and dementia pugilistica, the method comprising [~~administrering to a mammal, including man in need of such prevention and/or treatment,~~] administering a therapeutically effective amount of a compound according to [~~of formula Ia or Ib as defined in~~] any one of claims 1 to 9 to a patient in need thereof.

20. (Currently amended) The method according to claim 19, wherein the [~~disease~~] medical condition is Alzheimer's Disease.

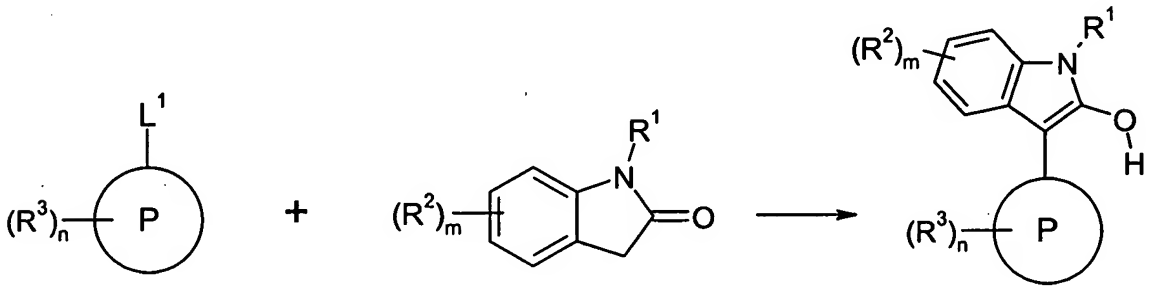
21. (Currently amended) A method [~~of~~] for the prevention and/or treatment of a medical condition selected from the group consisting of amyotrophic lateral sclerosis, corticobasal degeneration, Down syndrome, Huntington's Disease, postencephelatic parkinsonism, progressive supranuclear palsy, Pick's Disease, Niemann-Pick's Disease, stroke, head trauma, [~~and other~~] chronic neurodegenerative diseases, Bipolar Disease, affective disorders, depression, schizophrenia, cognitive disorders, hair loss, and pregnancy, the method comprising administering [~~contraceptive medication, comprising administrering to a mammal, including man in need of such prevention and/or treatment,~~] a therapeutically effective amount of a compound [~~of formula Ia or Ib as defined in~~] according to any one of claims 1 to 9 to a patient in need thereof.

22. (Currently amended) A method [~~of~~] for the prevention and/or treatment of a medical condition selected from the group consisting of predemented states, Mild Cognitive Impairment,

Age-Associated Memory Impairment, Age-Related Cognitive Decline, Cognitive Impairement No Dementia, mild cognitive decline, mild neurocognitive decline, Late-Life Forgetfulness, memory impairment, [~~and~~] cognitive impairment, vascular dementia, dementia with Lewy bodies, Frontotemporal dementia, and androgenetic alopecia, the method comprising administering [~~comprising administrering to a mammal, including man in need of such prevention and/or treatment,~~] a therapeutically effective amount of a compound [~~of formula Ia or Ib as defined in~~] according to any one of claims 1 to 9 to a patient in need thereof.

23. (Currently amended) A process for the preparation of a compound of formula Ia according to claim 1, the process comprising a step selected from the group consisting of:

a) reacting a compound of formula B, [~~(XV, XVIII, XVIIIa, XXI, XXIII),~~] wherein L^1 is a leaving group, [~~such as halogen, e.g. fluorine, chlorine or bromine,~~] with a compound of formula C, [~~(e.g. compounds of formula III, V, IX, XII, XIII);~~] wherein P, R^1, R^2, R^3, [~~and~~] m, and n are as defined in claim 1, in a solvent at a temperature between +10°C and +150°C, to form [~~a~~] the compound of formula Ia;

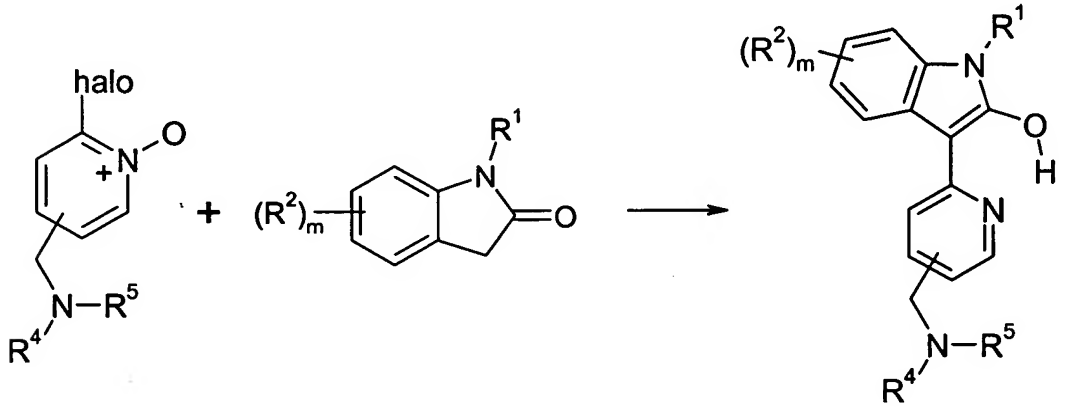


(B) **(C)** **(Ia)**

[~~in an appropriate solvent at a temperature between +10 °C and +150 °C;~~]

b) reacting a compound of formula XXV, wherein halo is halogen, [~~e.g. fluorine, chlorine or bromine,~~] with a compound of formula C, [~~(e.g. compounds of formula III, V, IX, XII, XIII);~~]

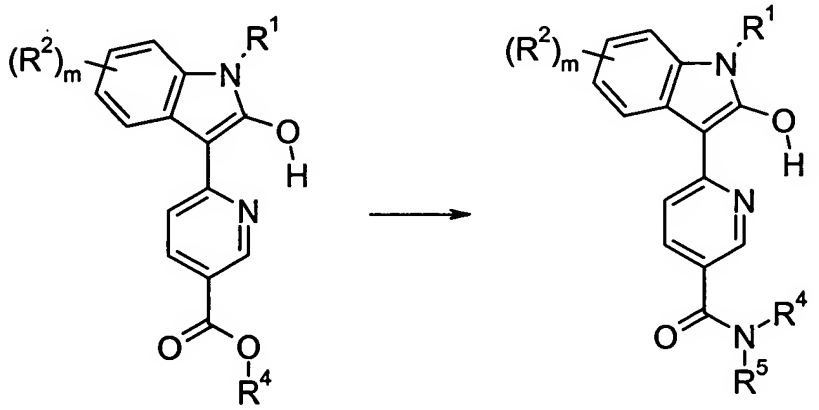
wherein R^1, R^2, R^4, R^5, and m are as defined in claim 1, in a solvent at a temperature between +10°C and +150°C, to form [a] the compound of formula Ia;



(XXV) **(C)** **(Ia)**

~~[in an appropriate solvent at a temperature between +10 °C and +150 °C;]~~

c) reacting a compound of formula XXVII, wherein R^4 is $C_{1\text{-}6}$alkyl, with [~~the appropriate~~] an amine of formula HNR^4R^5, wherein R^1, R^2, and R^5 are defined in claim 1, and wherein R^4 in the amine and in the compound of formula XXVII is the same or different, in a solvent in the presence of a reagent at a reaction temperature between 0°C and reflux, to form [a] the compound of formula Ia;

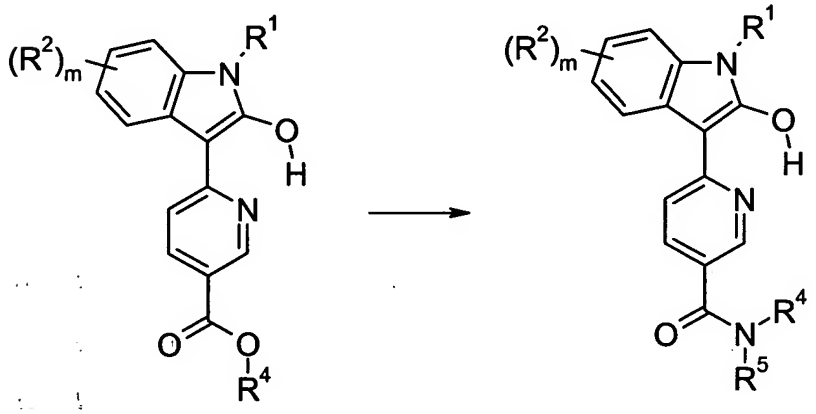


(XXVII) **(Ia)**

~~[carried out by:~~

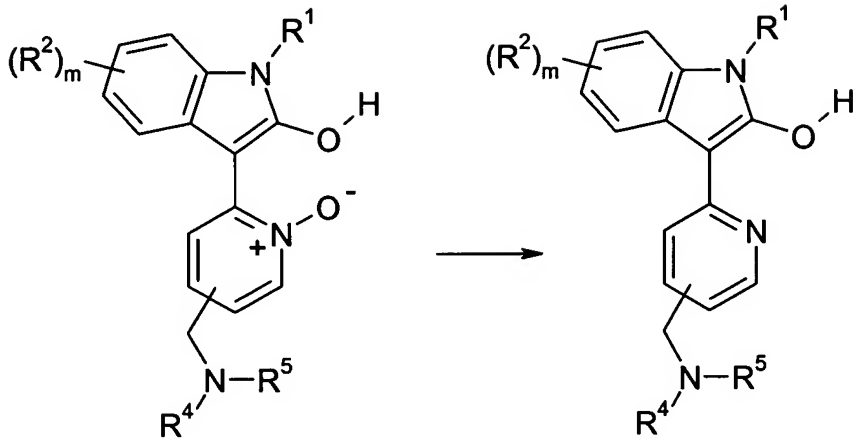
~~i) the reaction of the compound of formula XXVII with the appropriate amine R^4R^5NH in a suitable solvent in the presence of a suitable reagent at a reaction temperature between 0 °C and reflux, or;~~]

d) reacting [~~ii) the reaction of the~~] a compound of formula XXVII with [~~the appropriate~~] an amine of formula R^4R^5NH, wherein R^4 is C_{1-6}alkyl and R^1, R^2, R^5, and m are defined in claim 1, and wherein R^4 in the amine and in the compound of formula XXVII is the same or different, neat or in a [~~suitable~~] solvent, optionally in the presence of a [~~with or without a suitable~~] base, at a temperature between -20°C and +150°C, to form the compound of formula Ia; and



(XXVII) **(Ia)**

e) reducing [~~d) reduction of~~] the *N*-oxide in [~~the~~] a compound of formula XXVIII with a reagent in a solvent at a temperature between 0°C and +100°C, to form [~~a~~] the compound of formula Ia, wherein R^1, R^2, R^4, R^5, and m are defined in claim 1.[;]

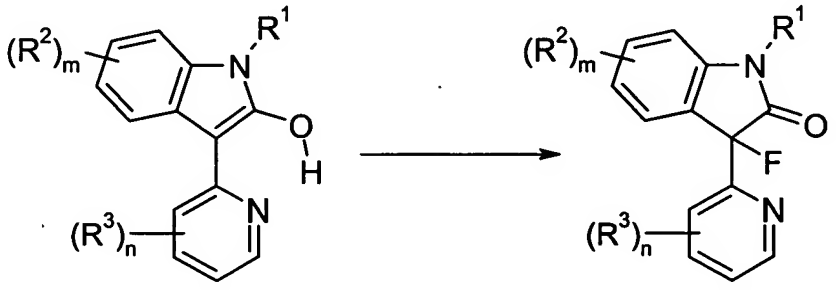


(XXVIII) **(Ia)**

~~[by using a suitable reagent in a suitable solvent at a temperature between 0 °C and +100 °C.]~~

24. (Currently amended) A process for the preparation of a compound of formula Ib according to claim 1, the process comprising:

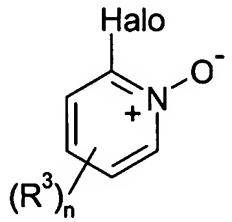
fluorinating a compound of formula Ia, ~~[to form a compound of formula Ib;]~~



(Ia) **(Ib)**

in ~~[an appropriate]~~ a solvent in the presence of a ~~[suitable]~~ fluorinating reagent and a ~~[suitable]~~ base at a reaction temperature between -40 °C and +80 °C, to form the compound of formula Ib, wherein R^1, R^2, R^3, m, and n are as defined in claim 1.

25. (Currently amended) A compound according to formula XXV,



(XXV)

wherein:

Halo is halogen;

R^3 is selected from the group consisting of halogen, nitro, C_{1-6}alkyl, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, trifluoromethoxy, $OC_{1-6}alkylNR^4R^5$, C_{0-6}alkylcyano, $C_{0-6}alkylCONR^4R^5$, $C_{0-6}alkyl(SO_2)NR^4R^5$, $C_{0-6}alkylNR^4R^5$, and ~~[a group]~~ X^1R^6; ~~[, wherein]~~

X^1 is selected from the group consisting of a direct bond, O, $CONR^7R^8$, $SO_2NR^9R^{10}$, SO_2R^{11}, ~~[or]~~ and $NR^{12}R^{13}$;

R^7, R^9, and R^{12} are each independently ~~[are]~~ selected from hydrogen ~~[or]~~ and C_{1-3}alkyl;

R^8, R^{10}, R^{11}, and R^{13} are each independently selected C_{0-4}alkyl groups;

R^6 is phenyl or a 5-, 6- or 7-membered heterocyclic group containing one or two heteroatoms ~~[,]~~ selected independently from N, O, and S, ~~[which]~~ wherein:

the heterocyclic group ~~[may be]~~ is saturated or unsaturated, ~~[or said]~~

the phenyl or 5-, 6- or 7-membered heterocyclic group ~~[may optionally be]~~ is optionally fused with a 5- or 6-membered saturated or unsaturated ring containing atoms selected independently from C, N, O, and S, and

the ~~[which]~~ phenyl or heterocyclic group ~~[may be]~~ is optionally substituted with one or two substituents selected from W; and

R^6 is linked to R^8, R^{10}, R^{11}, and R^{13}.

26. (Currently amended) ~~[A]~~ The compound according to claim 25, wherein R^3 is $C_{0-6}alkylNR^4R^5$; and n is 1.

27. (Currently amended) A compound [~~which is~~] selected from the group consisting of:

1-[(6-Chloropyridin-3-yl)methyl]-4-methylpiperazine;

2-Chloro-5-(morpholin-4-ylmethyl)pyridine 1-oxide;

2-Chloro-5-(pyrrolidin-1-ylmethyl)pyridine 1-oxide;

1-[(6-Chloro-1-oxidopyridin-3-yl)methyl]-4-methyl-1,4-diazepane;

2-Chloro-5-[(4-pyrrolidin-1-ylpiperidin-1-yl)methyl]pyridine 1-oxide;

1-[(6-Chloro-1-oxidopyridin-3-yl)methyl]-*N*,*N*-dimethylpyrrolidin-3-amine;

2-Chloro-5-[(4-methylpiperidin-1-yl)methyl]pyridine 1-oxide;

1-[(6-Chloro-1-oxidopyridin-3-yl)methyl]-4-phenylpiperazine;

1-[(6-Chloro-1-oxidopyridin-3-yl)methyl]-4-[2-nitro-4-(trifluoromethyl)phenyl]piperazine;

3-[[(6-Chloro-1-oxidopyridin-3-yl)methyl](ethyl)amino]propanenitrile;

N-(4-Chlorobenzyl)-*N*-[(6-chloro-1-oxidopyridin-3-yl)methyl]-*N*-methylamine;

N-[(6-Chloro-1-oxidopyridin-3-yl)methyl]-*N*-(2-furylmethyl)-*N*-methylamine;

N-[(6-Chloro-1-oxidopyridin-3-yl)methyl]-*N*-methyl-*N*-phenylamine;

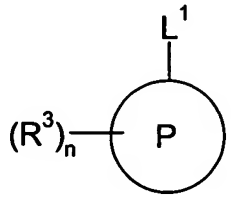
5-(Azetidin-1-ylmethyl)-2-chloropyridine 1-oxide;

2-Chloro-5-[(3-methylpiperidin-1-yl)methyl]pyridine 1-oxide;

N-[(6-Chloro-1-oxidopyridin-3-yl)methyl]-*N*-cyclohexyl-*N*-methylamine; and

2-Chloro-5-(piperidin-1-ylmethyl)pyridine 1-oxide[;].

28. (Currently amended) A compound according to formula B, [~~(XV, XVIII, XVIIIa XXI, XXIII)~~]



(B)

wherein:

P [~~represents~~] is a 5- or 6-membered heteroaromatic ring containing one or two heteroatoms selected independently from N, O, and S, of which at least one heteroatom is [~~selected from~~] nitrogen; [~~and~~]

L^1 is a leaving group; [~~such as a halogen e.g. fluorine, chlorine or bromine; wherein~~]

R^3 is selected from the group consisting of halogen, nitro, C_{1-6}alkyl, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, trifluoromethoxy, $OC_{1-6}alkylNR^4R^5$, C_{0-6}alkylcyano, $C_{0-6}alkylCONR^4R^5$, $C_{0-6}alkyl(SO_2)NR^4R^5$, $C_{0-6}alkylNR^4R^5$, and [~~a group~~] X^1R^6; [~~, wherein~~]

X^1 is selected from the group consisting of a direct bond, O, $CONR^7R^8$, $SO_2NR^9R^{10}$, SO_2R^{11}, and [~~or~~] $NR^{12}R^{13}$;

R^7, R^9, and R^{12} are each independently selected from [~~are~~] hydrogen [~~or~~] and C_{1-3}alkyl;

R^8, R^{10}, R^{11}, and R^{13} are each independently selected C_{0-4}alkyl groups;

R^6 is phenyl or a 5-, 6- or 7-membered heterocyclic group containing one or two heteroatoms [~~, selected~~] independently selected from N, O, and S, [~~which~~] wherein:

the heterocyclic group [~~may be~~] is saturated or unsaturated,

the [~~or said~~] phenyl or 5-, 6- or 7-membered heterocyclic group [~~may optionally be~~] is optionally fused with a 5- or 6-membered saturated or unsaturated ring containing atoms [~~selected~~] independently selected from C, N, O, and S, and

the [~~and which~~] phenyl or heterocyclic group is optionally [~~may be~~] substituted with one or two substituents selected from W; and

R^6 is linked to R^8, R^{10}, R^{11}, and R^{13}.

29. (Currently amended) [~~A~~] The compound according to claim 28, wherein:

P is a pyridine or pyrimidine ring; [~~and~~]

L^1 is a leaving group; [~~such as a halogen e.g. chlorine; wherein~~]

R^3 is selected from the group consisting of $C_{0-6}alkylCONR^4R^5$, $C_{0-6}alkyl(SO_2)NR^4R^5$, and $C_{0-6}alkylNR^4R^5$; and

n is 1.

30. (Currently amended) A compound [~~which is~~] selected from the group consisting of:

2-Chloro-*N*-[2-(dimethylamino)ethyl]isonicotinamide;

1-(2-Chloroisonicotinoyl)-4-methylpiperazine;

6-Chloro-*N*-[2-(dimethylamino)ethyl]-*N*-methylnicotinamide;

4-{2-[(6-Chloropyrimidin-4-yl)oxy]ethyl}morpholine;

1-Benzyl-4-[(6-chloropyridine-3-yl)sulfonyl]piperazine;

1-[(6-Chloropyridin-3-yl)sulfonyl]-4-(3-methylbutyl)piperazine;

1-[(6-Chloropyridin-3-yl)sulfonyl]-4-isopropylpiperazine;

1-[(6-Chloropyridin-3-yl)sulfonyl]-4-ethylpiperazine;

1-[(5-Bromo-6-chloropyridin-3-yl)sulfonyl]-4-methylpiperazine;

6-Chloro-*N*-methyl-*N*-(2-pyrrolidin-1-ylethyl)pyridine-3-sulfonamide;

6-Chloro-*N*-[2-(dimethylamino)ethyl]pyridine-3-sulfonamide;

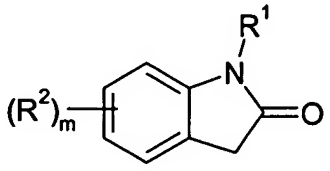
6-Chloro-*N*-[2-(dimethylamino)ethyl]-*N*-ethylpyridine-3-sulfonamide;

6-Chloro-*N*-[(1-ethylpyrrolidin-2-yl)methyl]pyridine-3-sulfonamide;

1-[(6-Chloropyridin-3-yl)sulfonyl]-4-methyl-1,4-diazepane; and

4-[(6-Chloropyridin-3-yl)sulfonyl]morpholine[;].

31. (Currently amended) A compound according to formula C, [~~(III, V, IX, XII, XIII)~~]



(C)

wherein:

R^1 is hydrogen;

R^2 is selected from the group consisting of halogen, nitro, C_{1-6}alkyl, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, trifluoromethoxy,

$OC_{1-6}alkylNR^4R^5$, $C_{0-6}alkylcyano$, $C_{0-6}alkylCONR^4R^5$, $C_{0-6}alkyl(SO_2)NR^4R^5$, $C_{0-6}alkylNR^4R^5$, and [~~a group~~] X^1R^6; [~~, wherein~~]

X^1 is selected from the group consisting of a direct bond, O, $CONR^7R^8$, $SO_2NR^9R^{10}$, SO_2R^{11}, and [~~or~~] $NR^{12}R^{13}$;

R^7, R^9, and R^{12} are each independently selected from [~~are~~] hydrogen [~~or~~] and $C_{1-3}alkyl$;

R^8, R^{10}, R^{11}, and R^{13} are each independently selected $C_{0-4}alkyl$ groups;

R^6 is phenyl or a 5-, 6- or 7-membered heterocyclic group containing one or two heteroatoms [~~, selected~~] independently selected from N, O, and S, [~~which~~] wherein:

the heterocyclic group [~~may be~~] is saturated or unsaturated,

the [~~or said~~] phenyl or 5-, 6- or 7-membered heterocyclic group [~~may optionally be~~] is optionally fused with a 5- or 6-membered saturated or unsaturated ring containing atoms [~~selected~~] independently selected from C, N, O, and S, and

the [~~which~~] phenyl or heterocyclic group [~~may be~~] is optionally substituted with one or two substituents selected from W; and

R^6 is linked to R^8, R^{10}, R^{11}, and R^{13}.

32. (Currently amended) [~~A~~] The compound according to claim 31, wherein:

R^1 is hydrogen;

R^2 is selected from halogen and [~~a group~~] X^1R^6; [~~, wherein~~]

X^1 is a direct bond;

R^6 is a 5- or 6-membered heterocyclic group containing one or two heteroatoms [~~, selected~~] independently selected from N, O, and S; and

m is 1 or 2.

33. (Currently amended) A compound [~~which is:~~] selected from the group consisting of:

5,6-Dibromo-1,3-dihydroindol-2-one;

5-Pyridin-3-yl-1,3-dihydro-2*H*-indol-2-one;

5-Thien-2-yl-1,3-dihydro-2*H*-indol-2-one;

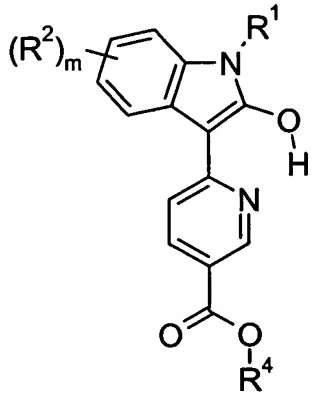
5-(2-Furyl)-1,3-dihydro-2*H*-indol-2-one;

5-(1,3-Oxazol-5-yl)-1,3-dihydro-2*H*-indol-2-one;

5-(1,3-Thiazol-4-yl)-1,3-dihydro-2*H*-indol-2-one; and

5-(2-Methyl-1,3-thiazol-4-yl)-1,3-dihydro-2*H*-indol-2-one[;].

34. (Currently amended) A compound according to formula XXVII,



(XXVII)

wherein:

R^1 is hydrogen;

R^2 is selected from the group consisting of halogen, nitro, C_{1-6}alkyl, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, trifluoromethoxy, $OC_{1-6}alkylNR^4R^5$, C_{0-6}alkylcyano, $C_{0-6}alkylCONR^4R^5$, $C_{0-6}alkyl(SO_2)NR^4R^5$, $C_{0-6}alkylNR^4R^5$, and [~~a group~~] X^1R^6; [~~, wherein~~]

X^1 is selected from the group consisting of a direct bond, O, $CONR^7R^8$, $SO_2NR^9R^{10}$, SO_2R^{11}, and [~~or~~] $NR^{12}R^{13}$;

R^7, R^9, and R^{12} are each independently selected from [~~are~~] hydrogen [~~or~~] and C_{1-3}alkyl;

R^8, R^{10}, R^{11}, and R^{13} are each independently selected C_{0-4}alkyl groups;

R^6 is phenyl or a 5-, 6- or 7-membered heterocyclic group containing one or two heteroatoms [,] selected independently from N, O, and S, [~~which~~] wherein:

the heterocyclic group [~~may be~~] is saturated or unsaturated,

the [~~or said~~] phenyl or 5-, 6- or 7-membered heterocyclic group [~~may optionally be~~] is optionally fused with a 5- or 6-membered saturated or unsaturated ring containing atoms [~~selected~~] independently selected from C, N, O, and S, and

the [~~and which~~] phenyl or heterocyclic group is optionally [~~may be~~] substituted with one or two substituents selected from W; and

R^6 is linked to R^8, R^{10}, R^{11}, and R^{13}.

35. (Currently amended) [~~A~~] The compound according to claim 34, wherein:

R^1 is hydrogen;

R^2 is selected from nitro and cyano; and

m is 1.

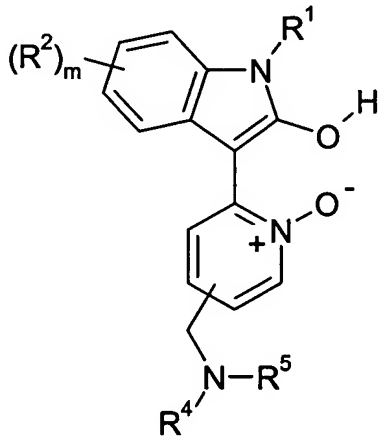
36. (Currently amended) A compound [~~which is~~] selected from the group consisting of:

Ethyl 6-(2-hydroxy-5-nitro-1*H*-indol-3-yl)nicotinate; and

Ethyl 6-(2-hydroxy-5-cyano-1*H*-indol-3-yl)nicotinate;

as a free base or a salt thereof.

37. (Currently amended) A compound [~~according to~~] of formula XXVIII,



(XXVIII)

wherein:

R^1 is hydrogen;

R^2 is selected from the group consisting of halogen, nitro, C_{1-6}alkyl, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, trifluoromethoxy, $OC_{1-6}alkylNR^4R^5$, C_{0-6}alkylcyano, $C_{0-6}alkylCONR^4R^5$, $C_{0-6}alkyl(SO_2)NR^4R^5$, $C_{0-6}alkylNR^4R^5$, and [~~a group~~] X^1R^6; [~~, wherein~~]

X^1 is selected from the group consisting of a direct bond, O, $CONR^7R^8$, $SO_2NR^9R^{10}$, SO_2R^{11}, [~~or~~] and $NR^{12}R^{13}$;

R^7, R^9, and R^{12} are each independently [~~are~~] selected from hydrogen [~~or~~] and C_{1-3}alkyl;

R^8, R^{10}, R^{11}, and R^{13} are independently selected C_{0-4}alkyl groups;

R^6 is phenyl or a 5-, 6- or 7-membered heterocyclic group containing one or two heteroatoms [~~, selected~~] independently selected from N, O, and S, [~~which~~] wherein:

the heterocyclic group [~~may be~~] is saturated or unsaturated,

the [~~or said~~] phenyl or 5-, 6- or 7-membered heterocyclic group [~~may optionally be~~] is optionally fused with a 5- or 6-membered saturated or unsaturated ring containing atoms selected independently from C, N, O, and S, and

the [~~and which~~] phenyl or heterocyclic group [~~may be~~] is optionally substituted with one or two substituents selected from W; and

R^6 is linked to R^8, R^{10}, R^{11}, and R^{13}.

38. (Currently amended) [~~A~~] The compound according to claim 37, wherein:

R^1 is hydrogen;

R^2 is [~~a group~~] X^1R^6; [~~, wherein~~]

X^1 is a direct bond;

R^6 is a 5- or 6-membered heterocyclic group containing one or two heteroatoms [~~, selected~~] independently selected from N, O, and S; and

m is 1.

39. (Currently amended) A compound [~~which is~~] selected from the group consisting of:

3-[5-(Morpholin-4-ylmethyl)-1-oxidopyridin-2-yl]-5-pyridin-3-yl-1*H*-indol-2-ol;

3-[5-(Morpholin-4-ylmethyl)-1-oxidopyridin-2-yl]-5-thien-2-yl-1*H*-indol-2-ol; and

5-(2-Furyl)-3-[5-(morpholin-4-ylmethyl)-1-oxidopyridin-2-yl]-1*H*-indol-2-ol, [;]

[~~as~~] wherein the compound is in the form of a free base or a salt thereof.

40. (Currently amended) A compound [~~which is~~] selected from the group consisting of:

5-(Hydroxymethyl)-1,3-dihydro-2*H*-indol-2-one;

2-Oxoindoline-5-carbaldehyde; and

5-(Chloroacetyl)-1,3-dihydro-2*H*-indol-2-one;

[~~as~~] wherein the compound is in the form of a free base or a salt thereof.

41. (Canceled)

42. (New) The compound according to claim 6, wherein W is C_{1-6}alkyl.

43. (New) The process according to claim 23, wherein L^1 is a halogen.

44. (New) The process according to claim 43, wherein the halogen is fluorine, chlorine, or bromine.

45. (New) The process according to claim 23, wherein the halogen in process b) is fluorine, chlorine, or bromine.

46. (New) The compound according to claim 28, wherein the leaving group is a halogen.

47. (New) The compound according to claim 45, wherein the halogen is fluorine, chlorine, or bromine.

48. (New) The compound according to claim 29, wherein the leaving group is a halogen.

49. (New) The compound according to claim 47, wherein the halogen is chlorine.